Institute of Biomedical Engineering

The Institute of Biomedical Engineering at Boğaziçi University was founded in 1982 as the first interdisciplinary graduate school in the field, in Turkey. The Institute of Biomedical Engineering offers a variety of education programs and research facilities, leading to MS and PhD degrees. The field of Biomedical Engineering has been established as an important profession, addressing the analyses of biological, physiological and health care problems with the application of engineering technologies and scientific methodologies. Graduates holding Engineering, Medicine and Basic Science degrees are welcomed to conduct the studies described herein after.

For more information: http://www.bme.boun.edu.tr/
Before Application

• Stroll through the Institute’s web pages, and gather information about the study areas.
• Collect more information by visiting the Institute’s Labs and by talking to the researchers (research assistants and the faculty members).
• Check the Institute’s application requirements for a MS and PhD degree:
  http://www.bme.boun.edu.tr/?page=education&npage=admissions
• Check out the course schedule and the areas of concentration at:
  http://www.bme.boun.edu.tr/docs/Graduate%20Programs.pdf
MS program

• The education is well structured based on an “areas of concentration” (AOC) system. Each area, represents a corresponding active research/occupational line of the Institute.

• The interview for a decision of admittance will involve;
  – inquires about the area the candidates want to apply to,
  – the prospective research projects they want to take part in, and
  – the relevancy of their previous studies

• The candidates are strongly advised to build a clear intention about the area in which he/she would want to study.
PhD Program

- The candidates are expected to be clear about;
  - the AOC they would like to focus on, and
  - the laboratory they would like to join, and/or
  - reaching an agreement with the faculty member(s) as their PhD advisor.

- The interview for a decision of admittance will involve inquires about the relevancy of the candidates’ former training for the prospective research plans.

- It is necessary for a candidate to visit the Institute and to talk to the faculty member(s) in the AOC aimed, before completing the application process.
“AOC: Areas of Concentration”

- Biomaterials
- Biomechanics
- Biomedical Instrumentation
- Biophotonics
- Clinical Engineering
- Medical Imaging
- Neuroengineering
Biomaterials

• Biomaterials deal with biological materials, prosthetics, implants and artificial organs.

Faculty
Bora Garipcan, PhD http://www.bme.boun.edu.tr/teachers/garipcan
Duygu Ege, PhD http://www.bme.boun.edu.tr/teachers/56

Laboratory
Biomaterials Laboratory http://www.bme.boun.edu.tr/?lab=93
Biomaterial Production & Characterization Laboratory http://www.bme.boun.edu.tr/?lab=128
Biomechanics

- Biomechanics is the application of engineering mechanics to biological systems for solving medical problems by studying the structure and the function of living organisms.

Faculty
Can Yücesoy, PhD [http://www.bme.boun.edu.tr/teachers/26](http://www.bme.boun.edu.tr/teachers/26)

Laboratory
Biomechanics Laboratory [http://www.bme.boun.edu.tr/?lab=32](http://www.bme.boun.edu.tr/?lab=32)
Biomedical Instrumentation

- Biomedical Instrumentation deals with design and development of new medical devices for therapeutic and diagnostic purposes.

Faculty
Yekta Ülgen, PhD [http://www.bme.boun.edu.tr/teachers/19](http://www.bme.boun.edu.tr/teachers/19)
Mehmed Özkan, PhD [http://www.bme.boun.edu.tr/teachers/2](http://www.bme.boun.edu.tr/teachers/2)
Özgür Kocatürk, PhD [http://www.bme.boun.edu.tr/teachers/49](http://www.bme.boun.edu.tr/teachers/49)

Laboratories
Medical Device Testing & Calibration Lab. [http://www.bme.boun.edu.tr/?lab=37](http://www.bme.boun.edu.tr/?lab=37)
Robotics Laboratory [http://www.bme.boun.edu.tr/?lab=40](http://www.bme.boun.edu.tr/?lab=40)
Medical Device & Implant Design Lab.
Biophotonics

• **Biophotonics** deals with the interaction between biological units and photons. This area focuses on the medical applications of lasers and near infrared spectroscopy.

**Faculty**
Murat Gülsoy, PhD. [http://www.bme.boun.edu.tr/teachers/gulsoy](http://www.bme.boun.edu.tr/teachers/gulsoy)

**Laboratories**
Biophotonics Laboratory [http://www.bme.boun.edu.tr/?lab=34](http://www.bme.boun.edu.tr/?lab=34)
Tissue Laboratory
Clinical Engineering

- **Clinical Engineering** primarily concerns with the optimization of healthcare delivery through quality management of medical devices and systems.

**Faculty**
Albert Güveniș, PhD [http://www.bme.boun.edu.tr/teachers/24](http://www.bme.boun.edu.tr/teachers/24)
Yekta Ülgen, PhD [http://www.bme.boun.edu.tr/teachers/19](http://www.bme.boun.edu.tr/teachers/19)

**Laboratories**
Medical Device Testing & Calibration Lab. [http://www.bme.boun.edu.tr/?lab=37](http://www.bme.boun.edu.tr/?lab=37)
Medical Imaging

• **Medical Imaging** studies various imaging modalities for diagnostic and research purposes.

**Faculty**

Ahmet Ademoğlu, PhD [http://www.bme.boun.edu.tr/teachers/ademoglu](http://www.bme.boun.edu.tr/teachers/ademoglu)

Albert Güveniş, PhD [http://www.bme.boun.edu.tr/teachers/24](http://www.bme.boun.edu.tr/teachers/24)

Cengizhan Öztürk, MD PhD [http://www.bme.boun.edu.tr/teachers/ozturf](http://www.bme.boun.edu.tr/teachers/ozturf)

Esin Öztürk Işık, PhD [http://www.bme.boun.edu.tr/teachers/8](http://www.bme.boun.edu.tr/teachers/8)

Mehmed Özkan, PhD [http://www.bme.boun.edu.tr/teachers/2](http://www.bme.boun.edu.tr/teachers/2)

**Laboratories**

Computational Imaging Laboratory [http://www.bme.boun.edu.tr/?lab=107](http://www.bme.boun.edu.tr/?lab=107)

Medical Imaging Laboratory [http://www.bumil.boun.edu.tr/](http://www.bumil.boun.edu.tr/)

Neurosignal Analysis Laboratory [http://www.bme.boun.edu.tr/?lab=33](http://www.bme.boun.edu.tr/?lab=33)
Neuroengineering

- **Neuroengineering** is a discipline that uses engineering techniques to understand, repair, replace, or enhance neural systems.

**Faculty**

Ahmet Ademoğlu PhD [http://www.bme.boun.edu.tr/teachers/ademoglu](http://www.bme.boun.edu.tr/teachers/ademoglu)

Burak Güçlü, PhD. [http://web0.boun.edu.tr/burak.guclu](http://web0.boun.edu.tr/burak.guclu)

Hale Saybaşılı, Phd. [http://www.bme.boun.edu.tr/teachers/3](http://www.bme.boun.edu.tr/teachers/3)

**Laboratories**

Cellular Imaging and Electrophysiology Lab. [http://www.bme.boun.edu.tr/?lab=35](http://www.bme.boun.edu.tr/?lab=35)

Neurosignal Analysis Lab. [http://www.bme.boun.edu.tr/?lab=33](http://www.bme.boun.edu.tr/?lab=33)

Tactile Research Lab. [http://web0.boun.edu.tr/burak.guclu/burak/TRL](http://web0.boun.edu.tr/burak.guclu/burak/TRL)
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